A synthetic probe, STR 16C2, detects a new polymorphic locus at 5pter (D5S206)

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Description: STR 16C2 is the double stranded DNA probe of sequence $(GTAGAGGTTCTGGACT)_n$ obtained by annealing of the oligonucleotide 5'GTAGAGGTTCTGGACT3' with the overlapping complementary 5'ACCTCTACAGTCCAGA3' followed by ligation and size selection of fragments above 400 bp, as described previously (1, 2).

Polymorphism: HinfI identifies thirteen alleles ranging from 2kb to 11 kb (2).

Size (kb)	2	3	4	4.5	5	5.5	6	6.5	7	7.5	8	9	10
Frequency (%)	1.5	27.5	2	14	5	10	5	21	10	0.5	1	2	0.5

Frequency: The heterozygosity rate in 96 unrelated individuals (grandparents or parents when no grandparent is available) from the CEPH panel is 80%.

Not Polymorphic For: Unknown.

Chromosomal Localisation: The locus detected by STR 16C2 has been localised to the extremity of the short arm of chromosome 5 by linkage analysis using the CEPH pedigree panel and CEPH database version 3 (4 cM from CRI L123, Lod score 33).

Mendelian Inheritance: Codominant segregation of the HinfI RFLPs was observed in 40 families from the CEPH panel.

Other Comments: The STR probe is labelled by random priming, hybridised at 50°C overnight in a buffer containing 2% SDS; 0.45 M Na_2PO_4 pH 7.2; 1 mM EDTA; 0.5% dried milk and washed at 55°C in 2×SSC and 0.1% SDS for 2×45 min. (1×SSC is 0.15 M NaCl – 15 mM sodium citrate).

References: 1) Vergnaud,G. (1989) *Nucl. Acids Res.* **17**, 7623–7630. 2) Vergnaud,G., Mariat,D., Zoroastro,M. and Lauthier,V. (1991) *Electrophoresis* **12**, 134–140.

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A synthetic probe, STR 16C18, detects a new polymorphic locus at 12qter (D12S55)

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Description: STR 16C18 is the double stranded DNA probe of sequence $(GTAGACGTTCTGCACT)_n$ obtained by annealing of the oligonucleotide 5'GTAGACGTTCTGCACT3' with the overlapping complementary 5'ACGTCTACAGTGCAGA3' followed by ligation and size selection of fragments above 400 bp, as described previously (1, 2).

Polymorphism: HAEIII identifies eleven alleles ranging from 3 kb to 8 kb (2).

Size (kb)	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
Frequency (%)	0.5	2.5	1.5	13	43	3	3.5	5.5	9	13	5.5

Frequency: The heterozygosity rate in 126 unrelated individuals (grandparents or parents when no grandparent is available) from the CEPH panel is 88%.

Not Polymorphic For: unknown.

Chromosomal Localisation: The locus detected by STR 16C18 has been localised to the extremity of the long arm of chromosome 12 by linkage analysis using the CEPH pedigree panel and CEPH database version 3 (0.1 cM from CRI L416, Lod score 24).

Mendelian Inheritance: Codominant segregation of the HaeIII RFLPs was observed in 40 families from the CEPH panel.

Other Comments: The STR probe is labelled by random priming, hybridised at 50°C overnight in a buffer containing 2% SDS; 0.45 M Na_2PO_4 pH 7.2; 1 mM EDTA; 0.5% dried milk and washed at 55°C in 2×SSC and 0.1% SDS for 2×45 min (1×SSC is 0.15 M NaCl – 15 mM sodium citrate).

References: 1) Vergnaud,G. (1989) *Nucl. Acids Res.* **17**, 7623–7630. 2) Vergnaud,G., Mariat,D., Zoroastro,M. and Lauthier,V. (1991) *Electrophoresis* **12**, 134–140.

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